

Topping Trees

What Is Topping?

Topping is the indiscriminate cutting of tree branches back to stubs or to lateral branches that are not large enough to assume the terminal role or to sustain the remaining branch. It is most commonly done to reduce the size of a tree and is also called "heading," "hat-racking," and "rounding over." Even though the harmful effects have been known for decades, the practice continues.

Topping Stresses Trees

A 20 year old tree has 20 years worth of leaf surface area which is needed to manufacture food to support 20 years of branch, trunk, and root growth. Topping removes leaves, which represent the tree's food making potential. It also removes tissue which contains a large amount of the tree's stored energy reserves. With the remaining energy reserves the tree must activate latent buds so that new branches and leaves can be formed. At the same time, energy is still needed to maintain the living cells within the tree, including the roots. Energy is also required to attempt to heal pruning cuts and to defend itself chemically from invaders such as pathogens.

Obviously topping weakens a tree. Even though a vigorous tree usually survives, it becomes weaker and more susceptible to damage from insects and diseases if topped more than once. Topping a severely stressed tree will usually kill it.

Topping Creates Hazards

The preferred location to make a pruning cut is just beyond the branch collar at the branch's point of attachment. The tree is biologically equipped to close such a wound, providing the tree is healthy enough and the wound is not too large. Cuts made along a limb between lateral branches create stubs with wounds that the tree may not be able to close. Normally a tree will "wall off," or

compartmentalize the decaying tissues, but few trees can handle the multiple severe wounds caused by topping. The exposed wood tissues begin to decay and the decay can spread into the trunk.

In order to replace leaves, a tree activates dormant buds near the surface of old branches. These vigorously growing shoots are called watersprouts. They are usually crowded and not strongly attached to the tree. Unlike normal branches that develop in a "socket" of overlapping wood tissues, these new shoots are anchored only in the outermost layers of the parent branches. Consequently, they are likely to break as they mature.

Topping Can Lead to Sunscald

Branches within a tree's crown produce thousands of leaves to absorb sunlight. When the leaves are removed, the remaining branches and trunk are suddenly exposed to high levels of light and heat. This may result in sunscald of the tissues beneath the bark, which can lead to cankers, bark splitting, and death of branches.

Topping Makes Trees Ugly

Topping destroys the natural form of a tree. During the winter, a topped tree appears disfigured. With leaves, it is a dense ball of foliage. It will never regain its natural form.

Topping Is Expensive

Topping is sometimes called a "ten year takedown." Due to declining health, severely pruned trees often have to be removed within ten years. If it survives, the decay and threat from branch failure will require additional work by an arborist to prolong the useful life of the tree and to minimize hazards. It is best to either have a tree properly pruned or to remove it altogether and replace it with a tree suited to the site.

Regarding expense, one should also consider the effect on property value. Healthy, well-maintained trees can add 10 to 20 percent to the value of a property. Topped trees are considered an impending expense.

Proper Pruning

There are times when a tree must be reduced in height or spread. It is best for the tree, to remove branches back to their point of origin. If a branch must be shortened, it should be cut back to a lateral branch that is large enough to assume the terminal role. Generally, the lateral you cut back to should be at least $\frac{1}{3}$ the diameter of the limb being removed. These guidelines will help preserve the natural form of the tree. For further advice on proper pruning see [HGIC 1003, *Pruning Trees*](#), or consult a certified arborist.

Source:

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